

Remarks

Claims 1-21 were pending in the subject application. By this Amendment, claims 1-21 have been cancelled, and new claims 22-31 have been added. No new matter has been added by these amendments. Accordingly, claims 22-31 are before the Examiner for consideration.

The presentation of new claims has been done in an effort to lend greater clarity to the claimed subject matter and to expedite prosecution. The presentation of new claims should not be taken to indicate the applicants' agreement with, or acquiescence to, the rejections of record. Favorable consideration of the claims now presented, in view of the remarks and amendments set forth herein, is earnestly solicited.

Claims 9-13 have been rejected under 35 U.S.C. §112, second paragraph. The applicants traverse this ground for rejection to the extent that it might be applied to the claims now presented for examination.

Please note that new claims have been presented herein. These new claims have been drafted to lend greater clarity to the claimed subject matter and to address the issues raised by the Examiner in the outstanding Office Action. For example, the claims now more clearly set forth the steps of the claimed method in a positive manner using active tense verbs. The claims also state the relationship of the various components and conclude with a step relating the method result to the purpose of the claim. The Examiner's helpful suggestions in this regard are appreciated.

In view of the applicants' presentation of new claims as discussed above, the applicants believe that the claims now clearly and distinctly define the metes and bounds of the claimed subject matter. Accordingly, the applicants respectfully request consideration and withdrawal of the rejection under 35 U.S.C. §112, second paragraph.

Claims 9-13 have been rejected under 35 U.S.C. §102(b) as being anticipated by Douillard *et al.* (Meth. Enz. 92:168, 1983). The applicants respectfully traverse this ground for rejection because the Douillard *et al.* reference does not disclose each and every step of the applicants' advantageous multi-analyte assay wherein a negative control value is generated using capture reagents that are related to the capture reagents that are used to detect the analytes of interest.

It is basic premise of patent law that, in order to anticipate, a single prior art reference must disclose within its four corners, each and every element of the claimed invention. In *Lindemann v. American Hoist and Derrick Co.*, 221 USPQ 481 (Fed. Cir. 1984), the court stated:

Anticipation requires the presence in a single prior art reference, disclosure of each and every element of the claimed invention, arranged as in the claim. *Connell v. Sears Roebuck and Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983); *SSIH Equip. S.A. v. USITC*, 718 F.2d 365, 216 USPQ 678 (Fed. Cir. 1983). In deciding the issue of anticipation, the [examiner] must identify the elements of the claims, determine their meaning in light of the specification and prosecution history, and identify corresponding elements disclosed in the allegedly anticipating reference. *SSIH, supra*; *Kalman [v. Kimberly-Clarke]*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983)] (emphasis added). 221 USPQ at 485.

Douillard *et al.* use, as negative control, irrelevant antigens while the assay of the subject invention uses relevant (structurally similar) antigens. As set forth in the applicants' claims that are now presented for examination, the capture reagents that are used to generate the negative control value have physical, chemical, and/or antigenic properties in common with the capture reagents that detect the analytes of interest. Advantageously, this method creates a sample-specific negative control value that enhances the ability of this assay to accurately detect the presence or absence of analytes. For example, in the case of assaying for HLA antibodies, a variety of different HLA antigens can be used. Potentially any one of these antigens could react with antibodies in the sample. However, in all likelihood, an individual will not make antibody against self antigens, therefore, one or more antigens will be negative thereby providing the negative control value.

Douillard *et al.* do not disclose or suggest an assay utilizing a structurally-related capture reagent that is used to determine the negative control value. Therefore, the applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. §102(b) based on the Douillard *et al.* reference.

Claims 9-13 have been rejected under 35 U.S.C. §102(b) as being anticipated by Hoffman *et al.* (U.S. Patent No. 5,599,543). The applicants respectfully traverse this ground for rejection because the Hoffman *et al.* reference does not disclose each and every step of the claimed assay wherein a negative control value is generated using capture reagents that are related to the capture

reagents that are used to detect the analytes of interest.

As noted by the Examiner, Hoffman *et al.* (US 5,599,543) teach the use of irrelevant antigens as control wells in an ELISA assay. Thus, in the Hoffman *et al.* method, it is pre-determined that the irrelevant antigens used as the negative control do not react with the sera being tested. In contrast, the subject invention provides an assay wherein there is no *a priori* knowledge of which antigens will or will not react with any given sample. Therefore, unlike in the Hoffman *et al.* assay, the least reactive antigen is not a pre-defined entity designed to serve as a negative control in the assay. In accordance with the current invention, the least reacting antigen will vary depending on the sample being tested, and therefore no capture reagent can be considered irrelevant.

Because Hoffman *et al.* do not disclose or suggest an assay having the steps as set forth in the current applicants' claims, those claims cannot be said to be anticipated. Accordingly, the applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(b) based on the Hoffman *et al.* reference.

In view of the foregoing remarks and the amendment above, the applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 CFR §§1.16 or 1.17 as required by this paper to Deposit Account No. 19-0065.

The applicants also invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



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